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## A LIST OF VERMONT HELVELLEAE, WITH DESCRIPTIVE NOTES.<sup>1</sup>

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(Plate 4.)

THE Helvelleae are a family of discomycetous fungi with fructifications consisting usually of two portions; an ascigerous, or spore-containing portion and a stem — sometimes called stipe — upon which the ascigerous portion is elevated above the underground, vegetative mycelium. The ascigerous portion (*d*, figs. 3 and 4) is very varied in form, as mitrate, clavate, capitate, ovoid, etc. The reproduction of the Helvelleae is by ascospores, that is by spores contained in the interior of fleshy sacs, called asci. From two to eight spores, according to the species, are contained in an ascus (figs. 1*a*, 4*b*, etc.). The asci, intermixed with sterile, thread-like bodies, called paraphyses (figs. 4*c* and 5*a*) are arranged side by side in a palisade layer, called the hymenium, which forms the outer and upper surface of the ascigerous portion. The hymenial surface is either even, rugose, gyrose-convolute or pitted by intersecting systems of ridges, its configuration affording in some cases characters of generic value.

By their habit and size, some species of the Helvelleae may be confused with Basidiomycetes, such as Phalleae, Sparassis, and the simple club-like forms of Clavaria. Microscopic examination with a one-fifth or one-sixth-inch objective of a small bit of the hymenium, crushed down in a drop of water under a cover glass, will decide all doubtful cases by showing the characteristic asci containing spores for all Helvelleae.

Some species of Xylaria, a genus of pyrenomycetous fungi, have fructifications which somewhat resemble those of Geoglossum, a genus

<sup>1</sup> Read in abstract before the Vermont Botanical Club, January 28, 1899.



of the Helvelleae. The species of Xylaria are more woody when mature, however, and sectional views of their fructifications show the hymenium, lining small sunken pits, the perithecia, each of which opens to the exterior by only a very minute aperture.

The twenty-one species of Helvelleae so far found in Vermont<sup>1</sup> belong in the eight genera: Morchella, Gyromitra, Helvella, Geoglossum, Spathularia, Vibrissea, Mitrula, and Leotia. For the convenience of those who are working toward a better knowledge of our Vermont and New England species and their distribution, a key to these genera is given and also brief descriptive notes on each species. For the same reason, notes are also included on a few additional species not yet found in Vermont. In the treatment of the subfamily Geoglosseae, I have followed Masee's Monograph of the Geoglosseae,<sup>2</sup> which seems to have been very carefully prepared and gives, on the whole, the most satisfactory presentation of the genera and species yet published.

#### KEY TO THE GENERA.

I. Ascigerous portion pileate or mitriform; fructification fleshy, rarely less than 3 cm. high, usually 5 cm. or more and often weighing several ounces . . . . . Subfamily MORCHELLEAE

1. Ascigerous portion ovoid or conical, with its outer surface deeply pitted by intersecting systems of ridges . . . . . *Morchella*
2. Ascigerous portion bullate-inflated, gyrose-convolute and somewhat rounded in our single species . . . . . *Gyromitra*
3. Ascigerous portion reflexed, mitriform-lobate or saddle-shaped, even. One doubtful member of this genus has the ascigerous portion cup-shaped at first, becoming plane . . . . . *Helvella*

II. Ascigerous portion clavate, spathulate, or capitate; fructifications fleshy or gelatinous, mostly slender, erect, small, and usually less than 5 cm. high; asci opening at the apex by a mere pore for liberation of the spores . . . . . Subfamily GEOGLOSSAE

<sup>1</sup> Of the Helvelleae, in Frost's list in the Amherst Catalogue of Plants growing within thirty miles of Amherst, Mass., five of the seventeen species there listed are not represented in the present list. These five species are *Helvella lacunosa* Afz., *H. Ephemium* Lev., *Vibrissea truncorum* Fr., *Mitrula cucullata* Fr., and *Rhizina undulata* Fr. As the authorities of Brattleboro', who have control of the Frost Herbarium, have not yet arranged it so that botanists are permitted to consult it, I greatly regret my inability to include in our Vermont list collections of the above five and any other species of Helvelleae which Frost may have made in Vermont in the vicinity of Brattleboro'.

<sup>2</sup> Annals of Botany 11: 225-306, pls. 12 and 13. 1897.



- a. Spores elongated, arranged side by side in a bundle in the ascus. . . . . 4-6.  
 4. Fructifications clavate, black; spores brown, septate . . . . . *Geoglossum*  
 5. Ascigerous portion obovate, laterally compressed, decurrent down opposite sides of the stem; spores colorless . . . . . *Spathularia*  
 6. Ascigerous portion pileate, free margin incurved towards the stem; spores colorless . . . . . *Vibrissea*  
 aa. Spores narrowly ellipsoidal, 1-2-seriate in the ascus . . . . . 7 and 8  
 7. Ascigerous portion subcapitate or clavate, decurrent down the stem . . . . . *Mitrula*  
 8. Ascigerous portion capitate or somewhat discoid, imperfectly hollow, margin thick and incurved towards the stem; fructification more or less gelatinous . . . . . *Leotia*

## MORCHELLA.

1. MORCHELLA ESCULENTA (L.) Pers. Ascigerous portion ovoid, rather obtuse; intersecting systems of ribs often oblique, forming pits rather more round than in the following species; spores 8 to an ascus,  $22-24 \times 12-14 \mu$ .

In sandy sheep pastures, Burlington (*L. R. Jones*), May 30.

2. MORCHELLA CONICA Pers. Ascigerous portion cylindrical-conical; primary ribs longitudinal, secondary ribs transverse, smaller, more like folds; pits narrow and more longitudinally elongated than in *M. esculenta*; spores 8 to an ascus,  $16-20 \times 9-12 \mu$ . (Figs. 1-1b.)

In thin grass under spruce trees, college campus, on lawn, and in mixed woods under oak tree, Middlebury (*Burt*). Five collections, all on clay soil, May 3-28.

3. MORCHELLA ANGUSTICEPS Pk. This is separated from *M. conica* by its generally smaller size, more pointed ascigerous portion, comparatively thicker stem, and larger spores, which are  $20-25 \times 13-17 \mu$  (Peck), or  $27-32 \times 16-20 \mu$  (Boudier for this species in France).

A single plant collected at Williamstown, Vt., by L. B. Roberts, was sent to Professor Jones. Half of the specimen was sent to Peck and by him referred to *M. angusticeps* Pk.; the other half is in the Herbarium of University of Vermont.

MORCHELLA HYBRIDA Pers. (= *M. semilibera* DC.) differs from each of the above species in having the lower half of its ascigerous portion free from the stem. As it is reported from Massachusetts, New York, and Ontario, it may yet be found in Vermont.

## GYROMITRA.

4. GYROMITRA ESCULENTA Pers. Ascigerous portion rounded, gyrose-convolute, bay-red; spores  $20-26 \times 10-12 \mu$ . (Fig. 2.)

On sandy ground, Burlington (*Jones*), April 29.

GYROMITRA GIGAS (Batsch.) Fr. and G. SPHAEROSPORA Pk., which have been found in New York, have the ascigerous portion whitish or ochraceous; and the latter has spherical spores,  $8-10 \mu$  diam.

## HELVELLA.

5. HELVELLA INFULA Schaeff. Stem stout, nearly even, pallid; ascigerous portion lobed, deflexed, subcinnamon, somewhat wrinkled at the



center in my specimens, margin adhering closely to the stem; spores  $18-20 \times 10 \mu$ . The largest specimen in dried state measures 12 cm. high and ascigerous portion 8 cm. broad.

On rotten pine logs by wood roads and on ground in wood roads, Grand View Mt., and mountains near E. Middlebury (*Burt*), August 6 and 26.

The specimens agree closely with the description and with Schaeffer's tab. 159. The species is rather intermediate between *Gyromitra* and *Helvella*, and is sometimes included in the one genus and sometimes in the other. According to Underwood,<sup>1</sup> this species has been found in this country heretofore only in North Carolina and New York.

6. *HELVELLA CRISPA* (Scop.) Fr. Stem deeply and interruptedly sulcate; ascigerous portion deflexed, lobed, often free, crisped, white or whitish; spores  $18 \times 10 \mu$ . The fructifications are stated to attain a height of 5-15 cm.; my specimens have been small, about 5 cm. high.

In oak woods and by roadside, Lake Dunmore (*Burt*), September 9 and 14.

7. *HELVELLA SULCATA* Afz. Stem sulcate, with deep longitudinal furrows and thin ribs, somewhat lacunose; ascigerous portion nearly black in my specimens, lobed, deflexed, adherent to stem along under surface; spores  $16 \times 12 \mu$ .

Under side of rotten log in woods, Lake Dunmore (*Burt*), August 31.

My specimens were barely 4 cm. high and on the whole, agree better with *H. sulcata*, if this is to be regarded as a distinct species and not a small form of *H. lacunosa* Afz.

8. *HELVELLA ELASTICA* Bull. Stem slender, even, cylindrical, sometimes compressed with age, 9 cm. long, about 5 mm. thick, white, pruinose; ascigerous portion bilobed, saddle-shaped, decurved at the sides but free from the stem, umbrino-castaneus of Saccardo's *Chromotaxia*, on upper surface, white and finely rugose on under side, 4 cm. long, 2 cm. high; spores  $18-22 \times 11-12 \mu$ . (Fig. 3.)

Lake Dunmore (*Farlow*); in wet moss in wood, Lost Pleiad Pond (*Burt*), August 31.

As indicated by the above notes, our specimens are the form with dark upper surface to ascigerous portion and with white under surface and stem, figured under the name of *Elvella fuliginosa* in Schaeffer's *Icones*, tab. 320. The other common European form with upper surface of the ascigerous portion yellowish has not yet been found in Vermont.

8a. *H. ELASTICA* var. *FUSCA* Bull. Champ., pl. 242, fig. D. This differs from the forms above in having the under surface of the ascigerous portion and the stem fuscous (ater of *Chromotaxia*); spores  $18 \times 10-11 \mu$ .

On ground in mixed woods, Lake Dunmore (*Burt*), August.

<sup>1</sup> On the Distribution of N. Amer. Helvellales. *Minn. Bot. Studies*, Bull. 9: 483.



9. *HELVELLA MACROPUS* (Pers.) Karst. Stem rough, nearly hairy, cinereous, attenuated upwards, even or irregularly lacunose; ascigerous portion cup-shaped at first, then expanded and rarely slightly elevated at the center, under surface hirto-verrucose and cinereous, upper surface even, mouse-brown; spores colorless,  $18-20 \times 11-12 \mu$ .

Rather common. On moist ground in mixed woods, Sudbury and Middlebury (*Burt*), August 2 and 14.

This species is somewhat intermediate between *Helvella* and the *Pezizeae* but on the ground of its development is generally classed with the latter as *Macropodia macropus* (Pers.) Fk. If one makes first acquaintance of the species with only a fully mature fructification, having the center slightly elevated, he may try to place it as an *Helvella* or a *Verpa*.

*HELVELLA EPHIPIUM* Lev. is a small species rarely more than  $2\frac{1}{2}$  cm. high. It somewhat resembles *H. elastica* in a young state but has the stem and under side of the ascigerous portion villose. It has been reported from Massachusetts and Rhode Island.

#### GEOGLOSSUM.

10. *GEOGLOSSUM HIRSUTUM* Pers. form *G. FARLOWI* Cke. Fructifications black, clavate, densely velvety,  $4-7\frac{1}{2}$  cm. high; with brown setae in the hymenium equaling or but slightly exceeding the asci; spores pale brown, slightly curved, 3-5-septate but most frequently 3-septate;  $72-85 \times 5\frac{1}{2} \mu$ . (Figs 4-4c).

On ground in mixed woods, Grand View Mt. (*Burt*), August 26.

Determination as *G. Farlowi* Cke. confirmed by Dr. Farlow. Specimens from this collection were distributed in Ellis & Ev. N. A. Fungi, No. 3532.

Other forms of *G. hirsutum*, most readily distinguished by their spores being more than 5-septate, have been found in New York and Massachusetts and are to be looked for here.

11. *GEOGLOSSUM GLABRUM* Pers. Fructifications black, clavate, about 5 cm. high, with stem minutely squamulose, so as to appear almost hairy; no brown setae in the hymenium; spores brown, narrowly clavate, 7-septate,  $85-95 \times 6-8 \mu$ ; paraphyses with tips curved or sometimes straight. — *G. ophioglossoides* (L.) Sacc.; *G. simile* Pk.

On swampy ground, Abby Pond; on ground in woods, S. Lincoln Notch; on very rotten log in hemlock grove, Lake Dunmore (*Burt*). August 28, September 2 and 14.

12. *GEOGLOSSUM PECKIANUM* Cke. Fructifications black, glabrous, narrowly lanceolate, 3-6 cm. high; stem viscid; no brown setae in the hymenium; spores brown, 15-septate,  $120 \times 7 \mu$ ; paraphyses with brownish spirally curved and twisted tips. (Figs. 5-5b).

On ground in mixed woods, Grand View Mt. (*Burt*), August 26.

Determination confirmed by Mr. Peck.



## SPATHULARIA.

13. SPATHULARIA CLAVATA (Schaeff.) Sacc. Fructifications 3–6 cm. high, compressed, obovate; ascigerous portion bright yellow, obtuse or cleft at the apex, decurrent down opposite sides of the stem, margin crisped: stem white or whitish, glabrous; spores finally multiseptate, 50–65 x  $2\frac{1}{2}$ –3  $\mu$ . — *S. flavida* Pers. (Fig. 7.)

Very common, usually in pine woods. Newfane (*C. D. Howe*); Ripton and Middlebury (*Burt*), August 21, 28, and September 9.

Specimens from the Middlebury collection were distributed in Fungi Columbiani, No. 1213.

SPATHULARIA RUGOSA Pk. Rep. N. Y. Mus. 50: 118, has been recently separated from *S. clavata* on account of rugose stem and shorter spores 40–60 x 2  $\mu$ ; its form and coloration are the same.

14. SPATHULARIA VELUTIPES Cke. & Farlow. Form and size as in *S. clavata*, but ascigerous portion is tawny yellow and stem minutely velvety, dark brown; spores 55–60 x  $1\frac{1}{2}$   $\mu$ . (Fig. 6.)

On mossy trunks in damp woods, Lake Willoughby (*Farlow*); on mossy log, Lake Dunmore, and on ground in spruce and pine woods, Abby Pond and Middlebury (*Burt*). August 17, 28 and September 20.

## VIBRISSEA.

15. VIBRISSEA CIRCINANS (Pers.) Hazsl. Fructifications gregarious, 2–4 cm. high; ascigerous portion pileate, pale yellowish flesh-color or yellowish, under surface concave, minutely wrinkled, the ridges running down the apex of the stem; stem pallid or reddish, pulverulent, glabrous; spores finally multiseptate, 50–60 x 2  $\mu$ . (Figs. 8–8c.) — *Leotia circinans* Pers.; *Cudonia circinans* (Pers.) Fr.

Burlington (*L. R. Jones*); on ground in pine woods, Middlebury (*Burt*). September 20.

Specimens from the Middlebury collection were distributed in Ellis & Ev. N. A. Fungi, No. 3533.

16. VIBRISSEA LUTEA Pk. Fructifications gregarious,  $1\frac{1}{2}$ – $2\frac{1}{2}$  cm. high, yellow; ascigerous portion subglobose, with margin slightly lobed, inflexed; stem nearly equal, solid, glabrous, a little more highly colored than the ascigerous portion, longitudinally wrinkled when dry; spores 72 x  $2\frac{1}{2}$   $\mu$  (80–90 x  $2\frac{1}{2}$   $\mu$  Masee); paraphyses with spirally curved tips in my specimens.

On rotting beech leaves in moist wooded ravine, S. Lincoln Notch (*Burt*), September 2.

Our specimens have been seen by Mr. Peck and the determination authenticated.

VIBRISSEA TRUNCORUM Fr. has been found in New York, Massachusetts, and New Hampshire and probably occurs in Vermont. It is an aquatic fungus, growing on submerged, decaying wood, branches and leaves, and attaining its best development in mountain streams. It is 1–2 cm. high; ascigerous portion deep orange-red; stem minutely velvety or squamulose; spores 200 x 1  $\mu$ .



## MITRULA.

17. MITRULA OLIVACEA (Pers.) Sacc. Fructifications gregarious or cæspitose, 2-4½ cm. high, hollow, very irregularly compressed, slimy or greasy to the touch but not viscid; ascigerous portion tawny-olivaceous, or greenish umbrinus, glabrous; stem paler than the ascigerous portion and more olivaceous, glabrous, shining; spores slightly curved, usually 4-5-guttulate and simple, but in an old specimen just beginning to decay rarely 3-septate, 15 x 5  $\mu$ . (Figs. 11-11b.) *Geoglossum olivaceum* Pers.; *Leptoglossum olivaceum* (Pers.) Cke.

In wood road, Grand View Mt. (Burt). August 26.

The spore dimensions agree with those given by Rehm in Rabenhorst's Pilze and by Masee, but are smaller than stated in Phillips' Discomycetes or in Saccardo's Sylloge (25 x 8  $\mu$ ). Through the kindness of Dr. Farlow I have been permitted to compare our specimens with European specimens of the closely related species *Mitrula viridis* and *M. olivacea*, distributed as *Leotia viridis* (Pers.) in Kunze's Fun. sel. No. 196 and *Leptoglossum olivaceum* (Pers.) in Phillips' Elv. Brit. No. 5. Our specimens are referred to *M. olivacea* on account of the glabrous stem. I am not aware that this species has been found heretofore in N. America; *M. viridis*, which has the stem minutely squamulose or granulose, is reported for S. Carolina and Pennsylvania.

18. MITRULA LARICINA (Villars) Masee. Fructifications gregarious, 2-6 cm. high; ascigerous portion broadly ovoid or subglobose, often more or less compressed, egg-yellow to orange-red, hollow; stem white or with a tinge of pink or yellow; spores 14-20 x 3  $\mu$ . *Mitrula phaloides* (Bull.) Chev.; *Mitrula paludosa* Fr.

On leaves in drying pools, Abby Pond, Ripton (Burt). June 26.

19. MITRULA VITELLINA (Bres.) var. IRREGULARIS Pk. Fructifications 2½-5 cm. high; ascigerous portion clavate, often irregular or compressed and somewhat lobed, tapering below into the short, rather distinct, yellowish or whitish stem; spores uniseriate, 10 x 5  $\mu$ .

In path on the western ascent of Mt. Mansfield (L. R. Jones & Burt). September 8.

Specimen seen by Mr. Peck and determination authenticated.

20. MITRULA RUFA (Schw.) Masee. Fructifications gregarious or scattered, 3-5 cm. high, varying in color from rufous or dusky brownish olive to dingy yellow; ascigerous portion narrowly ellipsoidal or clavate, often more or less laterally compressed and longitudinally rugulose, glabrous, 1-2 cm. long, 4-7 mm. broad, not sharply differentiated from the thinner, and usually paler, minutely squamulose stem; spores 8, irregularly 2-seriate, hyaline, slightly curved, 25-35 x 5-6  $\mu$ , at first multiguttulate, finally 5-septate, paraphyses with tips slightly thickened and more or less curved. *Geoglossum rufum* Schw.; *Mitrula lutea* Mont.; *Geoglossum luteum* Pk.; *Mitrula lutescens* B. & C.; and *Geoglossum pistillaris* B. & Cke. are given as synonyms by Masee, the types



to which they refer — all from America — being too closely intergraded for specific separation.

Two extreme forms of this series occur in Vermont, but with such close agreement in their spores and paraphyses as to favor Masee's conclusion. These forms are: —

*a. Geoglossum rufum* Schw. of Schweinitz's Syn. Fung. Amer. Bor. n. 1011. Fructification glabrous, rufous, subrugose, more than  $2\frac{1}{2}$  cm. high; ascigerous portion broadly clavate, obtuse at the apex; spores  $28-36 \times 5 \mu$ ; paraphyses with the tips strongly curved. (Figs. 9 and 9a.)

Amongst sphagnum, Lake Dunmore (*Farlow*), September.

This specimen was determined by Dr. Farlow as *G. rufum* Schw.

*b. Geoglossum luteum* Pk. of Rep. N. Y. Mus. 24:94. Fructifications more dingy yellow in color; ascigerous portion usually narrower; stem minutely squamulose; spores  $26-36 \times 5 \mu$ ; paraphyses less strongly curved. (Fig. 10.) Immature specimens agree with the description and figures of *Mitrula lutescens* B. & C.

Very common. On mossy banks and on humus of wood in woods, Belden's Falls, South Lincoln Notch, Lake Dunmore (*Burt*). July 20, September 2, 9 and 14.

A Lake Dunmore collection has been seen by Mr. Peck and the determination as *Leptoglossum luteum* (Pk.) authenticated.

MITRULA CUCULLATA Fr. has been collected in New York and Massachusetts and is to be looked for in Vermont. The fructifications grow on the fallen leaves of pine and various conifers and are from 1-2 cm. high; ascigerous portion irregularly obovoid, orange-yellow or orange-brown; stem very slender, usually crooked, glabrous, brown; spores  $12-18 \times 3 \mu$ .

#### LEOTIA.

21. LEOTIA LUBRICA Pers. Fructifications gregarious or in small clusters, somewhat gelatinous, 4-8 cm. long; ascigerous portion yellowish green to dark-green; stem not squamulose; spores finally 5-septate,  $20-24 \times 5-6 \mu$ . (Fig. 12.)

Common on damp ground in woods, Lake Hortonia, Abby Pond, South Lincoln Notch (*Burt*), August 15, 28, September 2.

SPRAGUEOLA AMERICANA Masee has been founded on a single New England collection by Sprague and should be especially looked for. The genus belongs in the section with *Mitrula* but differs from *Mitrula* in having the ascigerous portion strictly sessile. The fructification is subglobose in form,  $1\frac{1}{2}-2\frac{1}{2}$  cm. diam., coarsely nodulose, glabrous, pale ochraceous tan; spores obliquely uniseriate, continuous,  $6\frac{1}{2}-7 \times 3\frac{1}{2} \mu$ . *Mitrula crispata* Fr. in Berk. Notices N. A. Fungi No. 704.\* Grev. 3: 149.

MIDDLEBURY COLLEGE, MIDDLEBURY, VT.

EXPLANATION OF PLATE 4. — Fig. 1, *Morchella conica* (copied from Cooke's Mycographia),  $\times \frac{2}{3}$ ; fig. 1a, ascus containing 8 spores,  $\times 200$ ; fig. 1b, 2 spores, i.e. ascospores,  $\times 333$ . Fig. 2, *Gyromitra esculenta* (copied from Gillet's Discomycetes),  $\times \frac{2}{3}$ . Fig. 3, *Helvella esculenta*; d, its ascigerous portion; e, its stem,  $\times \frac{2}{3}$ . Fig. 4, *Geoglossum Farlowi*; d, its ascigerous portion; e, its stem,  $\times \frac{2}{3}$ ; fig. 4a, seta from hymenium,  $\times 200$ ; fig. 4b, ascus containing 8 spores,  $\times 200$ ; fig. 4c, 3 paraphyses,  $\times 200$ . Fig. 5, *Geoglossum Peckianum*,  $\times \frac{2}{3}$ ; fig. 5a, 2 of its paraphyses,  $\times 200$ ; fig. 5b, a spore,



x 200. Fig. 6, *Spathularia velutipes*, x  $\frac{2}{3}$ . Fig. 7, *Spathularia clavata*, x  $\frac{2}{3}$ . Fig. 8, *Vibrissea circinans*, x  $\frac{2}{3}$ ; fig. 8a, median longitudinal section of same; fig. 8b, ascus, x 200; fig. 8c, spore, x 333. Fig. 9, *Mitrula rufa* form *Geoglossum rufum* Schw., x  $\frac{2}{3}$ ; fig. 9a, ascus and paraphyses of same. Fig. 10, *Mitrula rufa* form *Geoglossum luteum* Pk., x  $\frac{2}{3}$ . Fig. 11, *Mitrula olivacea*, x  $\frac{2}{3}$ ; fig. 11a, ascus and paraphyses, x 333; fig. 11b, 3 of its spores, x 333. Fig. 12, *Leotia lubrica*, x  $\frac{2}{3}$ .

## SOME NOTEWORTHY PLANTS OF SOUTHEASTERN CONNECTICUT.

C. B. GRAVES.

THE following notes are offered as a contribution to our knowledge of geographical distribution. Many of the species named have not yet obtained recognition as New Englanders.

*EQUISETUM PALUSTRE* L. — A northern plant not hitherto reported, so far as I am aware, south of northern Maine and the Vermont shore of Lake Champlain. It was found by me in the summers of 1897 and 1898, growing in fair abundance in the wet meadows bordering Selden's Cove, on the Connecticut River, in the town of Lyme, about ten or twelve miles from the shore of Long Island Sound.

*PANICUM LONGIFOLIUM* Torr. — In going over my Panicums a year or two ago, I came across several specimens of this species collected in Montville in September, 1882. I have not met with it since. I believe it has not been recorded north of New Jersey.

*PANICUM BARBULATUM* Michx. — Is abundant throughout this part of the state, growing along streams and in wet meadows.

*ORYZOPSIS JUNCEA* (Michx.) B. S. P. (*O. canadensis* Torr.) — Occurs sparingly in pine woods near the shore of the Thames River, twelve miles from its mouth, in the town of Preston, which is south of its range as usually given.

*AGROSTIS INTERMEDIA* Scribner. — In Britton and Brown's Illustrated Flora the distribution accorded this species is "New York to Tennessee and Missouri." It is a common grass in this vicinity in dry woodlands.

*SIEGLINGIA SESLERIOIDES* (Michx.) Scribner (*Triodia cuprea* Jacq.). Another species not recorded, I believe, from New England except in the appendix to Gray's manual, 6th ed., and in Bishop's Catalogue of Connecticut Plants. It was found by the writer in 1887 at Crescent